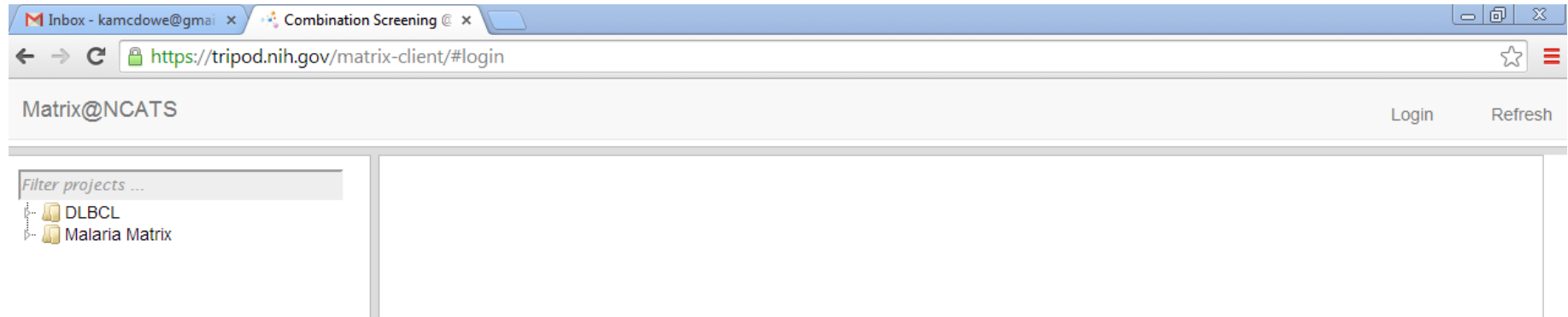


NCATS Tripod Site Tutorial

Tripod Site



- Go to <https://tripod.nih.gov/matrix-client/> using Chrome or Firefox. Do not use Internet Explorer!
- Click “Login” in top right corner
- Username and Password must be created by Raj
- Once you are logged in, folders you have access to will display in the left panel

Viewing and Downloading Data

1. Click on your Assay of interest in the left panel
2. Click the Heatmap Icon to view dose response curves (single agent screen) or matrix (combination screen)
3. Click the List Icon to view individual information for each compound or combination screened
4. Click the QC Diagnostics Icon for QC information on that assay

Viewing Data Online

The screenshot shows the Matrix@NCATS web application interface. The browser address bar displays <https://tripod.nih.gov/matrix-client/#login>. The navigation bar includes links for New Project, New Assay, Edit Project, Edit Assay, Compare selected assays, and Help, along with a shopping cart icon and a Logout vhl link.

On the left, a sidebar titled "Filter projects ..." lists three folders: DLBCL, Malaria Matrix, and VHL Kidney Cancer. A blue arrow points to the VHL Kidney Cancer folder.

The main content area displays details for the VHL Kidney Cancer project:

- Project Name:** VHL Kidney Cancer
- Collaborator:** Marston Linehan
- Start Date:** 05/15/2014
- Notes:** All cell lines are clear cell renal carcinoma with a VHL null mutation. Cells are cultured in DMEM plus L-glutamine and sodium pyruvate, with 10% FBS and pen/strep added.

Below the project details is a table with the following columns: ID, Name, Type, No. Agent, Count, Size, Cell Line, Run Date, MIPE Version, and a View button. A blue arrow points to the View button for the first row.

ID	Name	Type	No. Agent	Count	Size	Cell Line	Run Date	MIPE Version	View
2641	UOK102_MIPE4.0	single	1	0		UOK102	05/12/2014	4	View
2661	UOK139_MIPE4.0	single	1	0		UOK139	05/16/2014	4	View
2881	UOK150_MIPE4.0	single	1	0		UOK150	06/20/2014	4	View
2861	UOK161_MIPE4.0	single	1	0		UOK161	06/13/2014	4	View
2681	UOK331_MIPE4.0	single	1	0		UOK331	05/21/2014	4	View

- Click on the VHL Kidney Cancer folder on the right panel
- Then click View on the far right

VHL Kidney Cancer / UOK102_MIPE4.0

Collaborator Marston Linehan

Start Date 05/15/2014

Notes All cell lines are clear cell renal carcinoma with a VHL null mutation. Cells are cultured in DMEM plus L-glutamine and sodium pyruvate, with 10% FBS and pen/strep added.

Assay ID 2641

Canonical Name 384_0x0_4_single_UOK102_Marston Linehan_Cell Titer Glow_48.0 hour

FOTS ID single with MIPE v4

Num Component 1

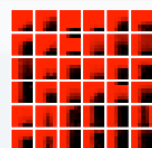
Block Size s-vhl-UOK102-1

Assay Volume 5.0 uL

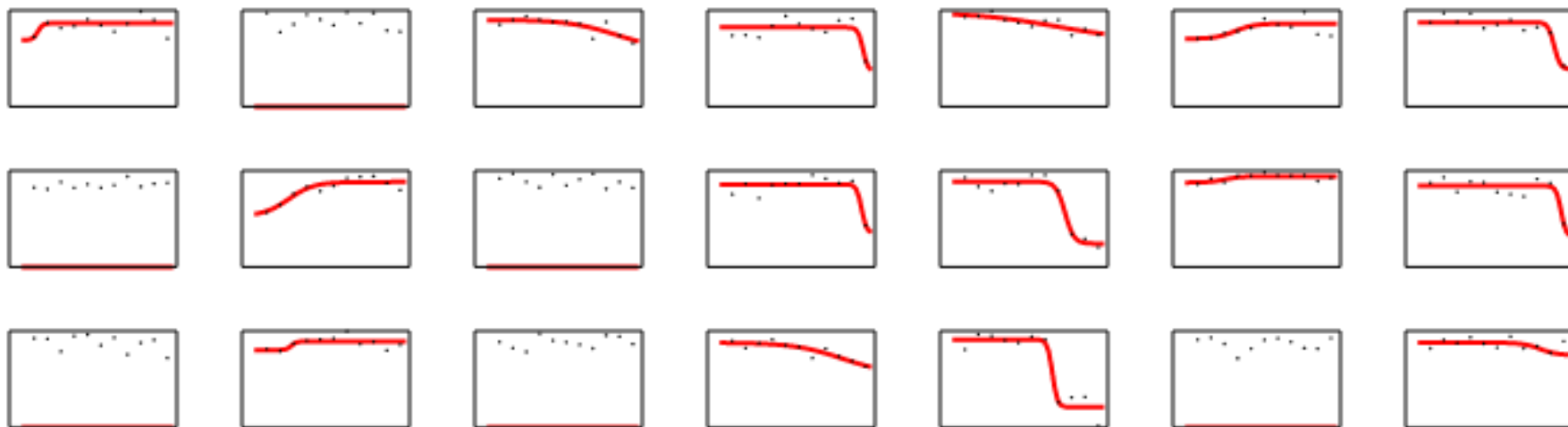
Readout Cell Titer Glow at 48.0 hour

Run date 05/12/2014

Notes UOK102 cells were plated at 500 cells per well then incubated for 4 hours. Next, compounds were added. Plates incubated with compound for 48 hours then Cell Titer Glo was added.



Well	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Mean	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Stdev	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

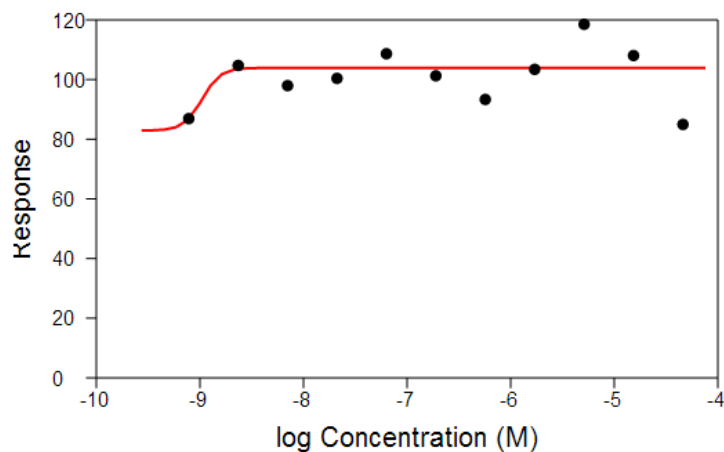


Serial	NCGC ID	Name	Target	MoA	AC50 (uM)	Hill Slope	Infinity	Zero	Curve Class?	Curve Class2?	Readout
1	NCGC00013226-15	Trifluoperazine hydrochloride	DRD2	Nav1.4 (SkM1) Sodium Channel Blockers; Nav1.7 (PN1/hNE-Na) Sodium Channel Blockers	0.00	4.95	103.90	82.90	1.3	1.4	activity

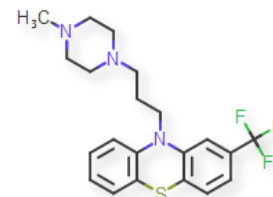


NCGC00013226-15 Trifluoperazine hydrochloride

activity



Curve class 1.3
 Curve class 2 1.4
 AC₅₀ 0.00 uM
 Hill slope 4.95
 Zero Activity 82.90
 Inf. Activity 103.90



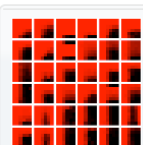
NCGC ID	NCGC00013226-15
Name	Trifluoperazine hydrochloride
MoA	Nav1.4 (SkM1) Sodium Channel Blockers; Nav1.7 (PN1/hNE-Na) Sodium Channel Blockers
Aliases	Trifluoperazine dihydrochloride, Trifluoperazine Hcl, Stelabid, Stelazine, Stelazine trifluoperazine, Trifluoperazina
CAS RN	440-17-5
Alt. Mechanism	

VHL Kidney Cancer / UOK102_MIPE4.0

Collaborator Marston Linehan
Start Date 05/15/2014
Notes All cell lines are clear cell renal carcinoma with a VHL null mutation. Cells are cultured in DMEM plus L-glutamine and sodium pyruvate, with 10% FBS and pen/strep added.

Assay ID 2641
Canonical Name 384_0x0_4_single_UOK102_Marston Linehan_Cell Titer Glow_48.0 hour
FOTS ID
Type single with MIPE v4
Block Size qHTS protocol
Assay Volume 5.0 uL
Readout Cell Titer Glow at 48.0 hour
Run date 05/12/2014
Notes UOK102 cells were plated at 500 cells per well then incubated for 4 hours. Next, compounds were added. Plates incubated with compound for 48 hours then Cell Titer Glo was added.

Only 10 compounds will display by default. To display everything, select all in the pull down menu then click the refresh button.



Download all data here!

1912 samples, 1 readout

[Download data](#)

Items to display

10





☐ Highlight actives

Clicking on any of the headings will sort all the data by that column

[← Previous](#)

[Next →](#)

Serial	NCGC ID	Name	Target	MoA	AC50 (uM)	Hill Slope	Infinity	Zero	Curve Class?	Curve Class2?	Readout
1	NCGC00013226-15	Trifluoperazine hydrochloride	DRD2	Nav1.4 (SkM1) Sodium Channel Blockers; Nav 1.7 (PN1/hNE-Na) Sodium Channel Blockers	0.00	4.95	103.90	82.90	1.3	1.4	activity 
2	NCGC00013724-01	Methscopolamine bromide		Muscarinic Antagonists	1000000.00	0.00	0.00	0.00	5	4	activity 

VHL Kidney Cancer / UOK102_MIPE4.0

Collaborator Marston Linehan

Start Date 05/15/2014

Notes All cell lines are clear cell renal carcinoma with a VHL null mutation. Cells are cultured in DMEM plus L-glutamine and sodium pyruvate, with 10% FBS and pen/strep added.

Assay ID 2641

Canonical Name 384_0x0_4_single_UOK102_Marston Linehan_Cell Titer
Glow_48.0 hour

FOTS ID	
Type	single with MIPE v4

Block Size
qHTS protocol

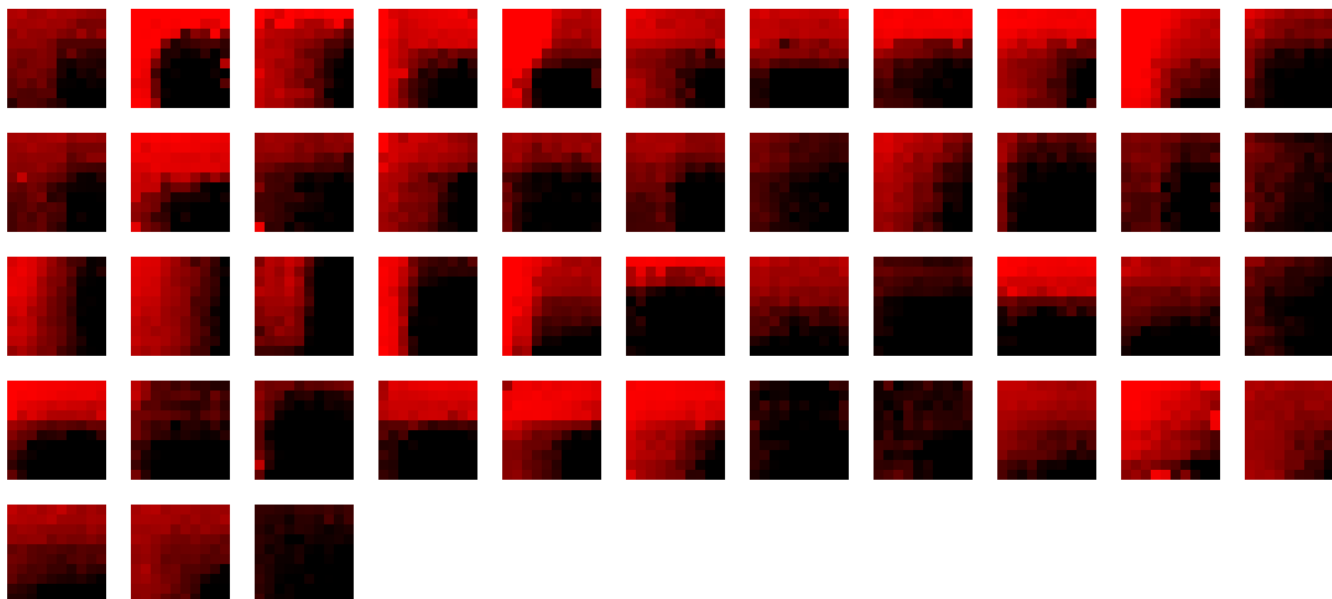
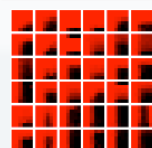
Assay Volume	5.0 uL
--------------	--------

Readout Cell Titer Glow at 48.0 hour

Run date 05/12/2014

Notes UOK102 cells were plated at 500 cells per well then incubated for 4 hours. Next, compounds were added. Plates incubated with compound for 48 hours then Cell Titer Glo was added.

Num Component	1
---------------	---



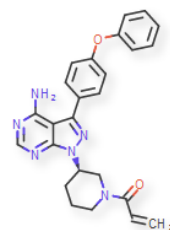
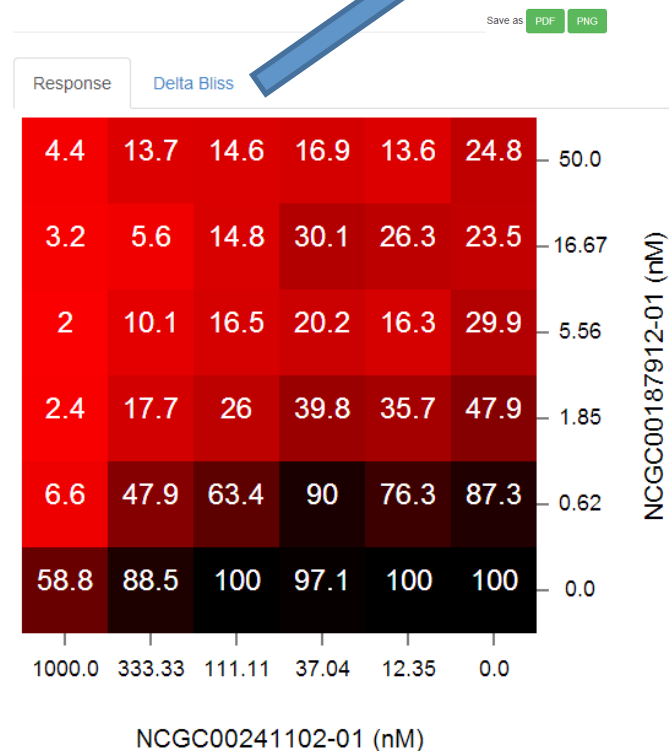
Block 3 6x6 BTK Matrix TMD8



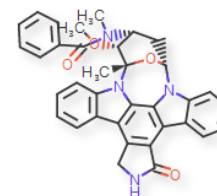
Red wells = viability readout, values are from CTG

Green wells = synergy assessment based on viability readout

Block 3 6x6 BTK Matrix TMD8



NCGC ID	NCGC00187912-01
Name	PCI-32765
MoA	Btk/Lck/Lyn inhibitor
Aliases	PCI-32765
CAS RN	936563-96-1
Alt. Mechanism	
Phase	



NCGC ID	NCGC00241102-01
Name	Midostaurin
MoA	PKC/FLT3 inhibitor
Aliases	Midostaurin, PKC 412, CGP-41251/PKC-412
CAS RN	120685-11-2
Alt. Mechanism	
Phase	

Save as

PDF

PNG



Download this specific matrix data

VHL Kidney Cancer / UOK102_MIPE4.0

Collaborator

Marston Linehan

Start Date

05/15/2014

Notes

All cell lines are clear cell renal carcinoma with a VHL null mutation. Cells are cultured in DMEM plus L-glutamine and sodium pyruvate, with 10% FBS and pen/strep added.

Assay ID

2641

Canonical Name

384_0x0_4_single_UOK102_Marston Linehan_Cell Titer Glow_48.0 hour

FOTS ID

single with MIPE v4

Num Component

1

Block Size

qHTS protocol

s-vhl-UOK102-1

Assay Volume

5.0 uL

Readout

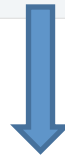
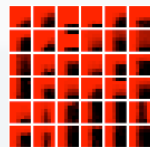
Cell Titer Glow at 48.0 hour

Run date

05/12/2014

Notes

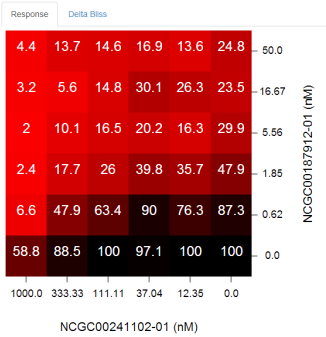
UOK102 cells were plated at 500 cells per well then incubated for 4 hours. Next, compounds were added. Plates incubated with compound for 48 hours then Cell Titer Glo was added.



6x6 BTK Matrix TMD8 (168)														
Show ComboID Selection Download 0														
Filter rows														
Serial	QCScore	Cell Line	A	B	Median Excess	Num Excess	Excess HSA	Excess CRX	LS 3x3	Beta	Gamma	DBSumPos	DBSumNeg	Self Response Cross Matrix Δ Bliss
1		TMD8	PCI-32765 <i>Btk/Lck/Lyn inhibitor</i>	Canertinib <i>EGFR (HER1; erbB1) inhibitor</i>	84.21	6	581.06	581.06	11.74	1.19	1.18	6.67	-0.55	No
2		TMD8	PCI-32765 <i>Btk/Lck/Lyn inhibitor</i>	Neratinib <i>EGFR (HER1; erbB1) inhibitor</i>	78.45	18	-207.68	-207.68	-14.72	0.93	0.91	0.38	-1.86	No
3		TMD8	PCI-32765 <i>Btk/Lck/Lyn inhibitor</i>	Midostaurin <i>PKC/Itk3 inhibitor</i>	91.03	22	-424.84	-424.84	-27.91	0.87	0.83	0.15	-3.5	No
4		TMD8	PCI-32765 <i>Btk/Lck/Lyn inhibitor</i>	TAE-684 <i>Anaplastic Lymphoma Kinase (ALK) Inhibitor</i>	86.5	24	-282.82	-282.82	-13.49	0.9	0.89	0.03	-2.67	No
5		TMD8	PCI-32765 <i>Btk/Lck/Lyn inhibitor</i>	AZD-7762 <i>Chk1/2 Inhibitor</i>	90.19	14	-205.84	0	-17.56	0.9	0.85	0.17	-1.69	No

	Serial	QCScore	Cell Line	A	B	Median Excess	Num Excess	Excess HSA	Excess CRX	LS 3x3	Beta	Gamma	DBSumPos	DBSumNeg	Self Response Cross	Response Matrix	Δ Bliss
		1	TMD8	PCI-32765 <i>Btk/Lck/Lyn</i> inhibitor	Canertinib <i>EGFR (HER1; erbB1)</i> inhibitor	84.21	6	581.06	581.06	11.74	1.19	1.18	6.67	-0.55	No		
		2	TMD8	PCI-32765 <i>Btk/Lck/Lyn</i> inhibitor	Neratinib <i>EGFR (HER1; erbB1)</i> inhibitor	78.45	18	-207.68	-207.68	-14.72	0.93	0.91	0.38	-1.86	No		
		3	TMD8	PCI-32765 <i>Btk/Lck/Lyn</i> inhibitor	Midostaurin <i>PKC/ftt3</i> inhibitor	91.03	22	-424.84	-424.84	-27.91	0.87	0.83	0.15	-3.5	No		
		4	TMD8	PCI-32765 <i>Btk/Lck/Lyn</i> inhibitor	TAE-684 <i>Anaplastic Lymphoma Kinase (ALK)</i> Inhibitor	86.5	24	-282.82	-282.82	-13.49	0.9	0.89	0.03	-2.67	No		
		5	TMD8	PCI-32765 <i>Btk/Lck/Lyn</i> inhibitor	AZD-7762 <i>Chk1/2</i> Inhibitor	90.19	14	-205.84	0	-17.56	0.9	0.85	0.17	-1.69	No		

Block 3 6x6 BTK Matrix TMD8



Save as PDF PNG

NCGC ID: NCGC00187912-01
Name: PCI-32765
Mol: Btk/Lck/Lyn inhibitor
Aliases: PCI-32765
CAS RN: 930563-90-1
All Mechanisms:
Phase:

NCGC ID: NCGC00241102-01
Name: Midostaurin
Mol: PKC/ftt3 inhibitor
Aliases: Midostaurin, PKC 412, CGP-41251/PKC-412
CAS RN: 120685-11-2
All Mechanisms:
Phase:



Combination Screening @ x

https://tripod.nih.gov/matrix-client/#login

Matrix@NCATS New Project New Assay Edit Project Edit Assay Compare selected assays **Help** 0 Logout vhl

Filter projects ...

- DLBCL
- Malaria Matrix
- VHL Kidney Cancer

Project Name VHL Kidney Cancer

Collaborator Marston Linehan

Start Date 05/15/2014

Notes All cell lines are clear cell renal carcinoma with a VHL null mutation. Cells are cultured in DMEM plus L-glutamine and sodium pyruvate, with 10% FBS and pen/strep added.

ID	Name	Type	No. Agent	Count	Size	Cell Line	Run Date	MIPE Version	
<input type="checkbox"/> 2641	UOK102_MIPE4.0	single	1	0		UOK102	05/12/2014	4	View
<input type="checkbox"/> 2661	UOK139_MIPE4.0	single	1	0		UOK139	05/16/2014	4	View
<input type="checkbox"/> 2881	UOK150_MIPE4.0	single	1	0		UOK150	06/20/2014	4	View
<input type="checkbox"/> 2861	UOK161_MIPE4.0	single	1	0		UOK161	06/13/2014	4	View
<input type="checkbox"/> 2681	UOK331_MIPE4.0	single	1	0		UOK331	05/21/2014	4	View

Combination Screening Help

The *Tabular* tab summarizes the results of a combination screen. Several metrics of synergy are reported and their details are provided below. Our experience has shown that no single metric is effective in characterizing synergy over a large number of cases and that correlation between some of these metrics are relatively poor.

Clicking on NCGC ID's (columns **A** and **B**) will display an information box for the compounds. Clicking on the heatmaps will display a larger version of the heatmap along with the information boxes of the two compounds for that combination. Clicking on column headers will allow you to sort the entire table by that column.

- MedianExcess:** The median of the sum of the differences between the combination responses and the single agent responses. More positive values are better
- NumExcess:** The number of combinations in a block that show a better combination responses than *both* the corresponding single agents. Larger is better
- Excess HSA:** The HSA (see below) model is computed and the differences between each combination in the block and the corresponding HSA value are summed. More negative values are better
- ExcessCRX:** An extension of the 'Excess HSA' metric that takes into account dilution factors. These factors are based on the EC₉₀ and EC₁₀ values of the single agent curves. Since the single agent curves are derived from the individual blocks, they can be noisy and thus the EC₉₀ and EC₁₀ can be inaccurate, resulting in noisy values for this metric. See [Lehar et al](#) for more information
- LS 3x3:** The sum of the deviations from the HSA model are evaluated on all 3x3 submatrices of the response matrix (excluding the single agent row and column) and the minimum value is reported as LS 3x3 (originally suggested by [Louis Staudt](#)).
- Beta:** The parameter that minimizes the difference between the observed combination effect and that obtained from the Bliss independence model. Values less than 1, greater than 1 and equal to 1 indicate synergy, antagonism and non-interaction respectively. See [Cokol et al](#) for more details
- Gamma:** The parameter that minimizes the difference between the observed combination effect and Gaddums non-interaction model. Values less than 1, greater than 1 and equal to 1 indicate synergy, antagonism and non-interaction respectively. See [Cokol et al](#) for more details
- DBSumNeg:** The sum of the negative deviations from the Bliss model. In practice this is simply the sum of the negative elements of the ΔBliss matrix
- DBSumPos:** The sum of the positive deviations from the Bliss model. In practice this is simply the sum of the positive elements of the ΔBliss matrix
- Δ Bliss** - the excess over the Bliss model at each combination. More negative values indicate that the combination is better than the activity predicted by the Bliss model. A value of 0 indicates that the combination is no different from that predicted by the Bliss model

How to Add a New Assay

1. Login to the tripod site
2. Click the folder in the left panel that you want to add the new assay to
3. Click “New Assay” at the top of the page
4. Fill in information
5. Click “Create Assay”
6. Refresh browser and your new assay will appear

Combination Screening @ x

← → ↻ <https://tripod.nih.gov/matrix-client/#new/assay>

Matrix@NCATS New Project **New Assay** Edit Project Edit Assay Compare selected assays Help

Filter projects ...

- ALK
- ATAD5
- ATL
- BRAF Inhibitor Curve Shift
- BX and PF Combination
- Birinapant
- Bladder Cancer
- Brachyury_Lung Cancer
- Braf Minigene
- CD47
- CLL
- Cancer Stem Cells
- DIPG
- DLBCL**
- DLBCL_Resistant Lines
- DNA repair combinations
- Elesclomol
- Ewings Sarcoma
- Ewings Sarcoma/Guanine

Project Name DLBCL

Collaborator Louis Staudt

Start Date 12/01/2010

Notes HBL1
TMD8
SUDHL2
U2932
RPMI + 10% FBS+P/S for growth
RPMI + 5% FBS-no phenol+P/S for screen

	ID	Name	Type	No. Ager
<input type="checkbox"/>	166	4x4s with Lou Staudt's Lines and Harold Varmus line	drug vs all	2
<input type="checkbox"/>	167	First 4x4 beta test for Lou Staudt	drug vs all	2

Fill in New Assay Details

2

Create new assay ✕

Assay Details Metadata FOTS Management Notes

Project MIPE Version

Choose Project from pull down menu
Select MIPE version from pull down menu

Name

Type Size Number of Components

Plate Type Readout

Timepoint Units

Create assay Cancel

3

2

8

Fill in New Assay Details

Create new assay

Assay Details Metadata FOTS Management Notes

Cell Line

qHTS Protocol Name

The qHTS protocol name must be filled in for the data to display on the site

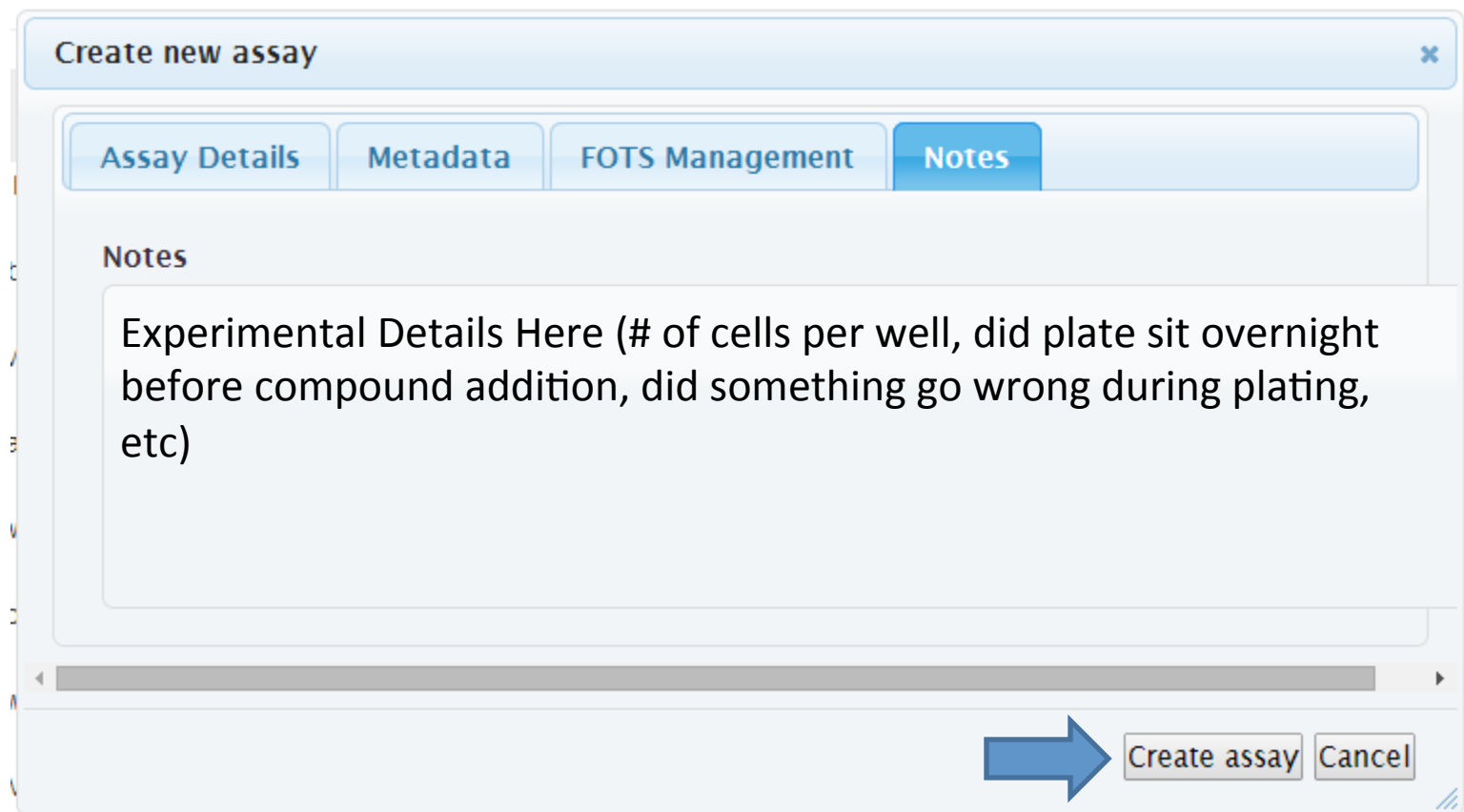
Assay Volume (uL)

Run Date

The run date can be the date the experiment started or ended

Create assay Cancel

Fill in New Assay Details



The image shows a software window titled "Create new assay" with a close button (X) in the top right corner. Below the title bar are four tabs: "Assay Details", "Metadata", "FOTS Management", and "Notes". The "Notes" tab is currently selected and highlighted in blue. Inside the "Notes" tab, there is a text area containing the text: "Experimental Details Here (# of cells per well, did plate sit overnight before compound addition, did something go wrong during plating, etc)". At the bottom of the window, there is a horizontal scrollbar. Below the scrollbar, there are two buttons: "Create assay" and "Cancel". A large blue arrow points from the left towards the "Create assay" button.

Create new assay

Assay Details Metadata FOTS Management Notes

Notes

Experimental Details Here (# of cells per well, did plate sit overnight before compound addition, did something go wrong during plating, etc)

Create assay Cancel

How to Edit an Assay

1. Click the arrow by the folder in the left panel to display all assays
2. Click on the assay you want to edit
3. Click “Edit Assay” in the top left
4. Fill in information
5. Click “Save Changes”
6. Refresh browser and changes will appear

Combination Screening @ x

← → ↻ <https://tripod.nih.gov/matrix-client/#login>

Matrix@NCATS New Project

Filter projects ...

- ALK
- ATAD5
- ATL
- BRAF Inhibitor Curve Shift
- BX and PF Combination
- Birinapant
- Bladder Cancer
- Brachyury_Lung Cancer
- Braf Minigene
- CD47
- CLL
- Cancer Stem Cells
- DIPG
- DLBCL**
- DLBCL_Resistant Lines
- DNA repair combinations
- Elesclomol
- Ewings Sarcoma
- Ewings Sarcoma/Guanine



Combination Screening @ x

← → ↻ <https://tripod.nih.gov/matrix-client/#login>

Matrix@NCATS New Project New Assay Edit Project Edit Assay

DLBCL / BRD 10X10 TMD8 CTG

Collaborator Louis Staudt

Start Date 12/01/2010

Notes HBL1
TMD8
SUDHL2
U2932
RPMI + 10% FBS+P/S for growth
RPMI + 5% FBS-no phenol+P/S for

Filter projects ...

- ALK
- ATAD5
- ATL
- BRAF Inhibitor Curve Shift
- BX and PF Combination
- Birinapant
- Bladder Cancer
- Brachyury_Lung Cancer
- Braf Minigene
- CD47
- CLL
- Cancer Stem Cells
- DIPG
- DLBCL
- 4x4s with Lou Staudt's Lines and
- 6x6 BTK Matrix TMD8
- 6x6 JQ1 Matrix TMD8
- 6x6 Validation of MIPE4 in TMD8
- BRD 10X10 TMD8 CTG 48hr**
- BRD 10X10 TMD8 Caspase 16h
- BRD 10X10 TMD8 Caspase 24h
- BRD 10X10 TMD8 Caspase 8hr
- BRD 10x10 TMD8 Multiplex Dexz
- BRD 10x10 TMD8 Multiplex Dexz
- BRD 6x6 with MIPE 3.0
- BRD Cherry pics pinned TMD8 1
- BRD Cherry pics pinned TMD8 8
- BRD Cherry pics pinned TMD8 C
- BRD Cherry pics pinned TMD8 C
- BRD Cherry pics pinned TMD8 C
- BRD cherry pics from matrix in 3i
- BRD, BTK1, BTK2 HBL1 redo
- BRD, BTK1, BTK2 TMD8 redo
- BRD, BTK1, BTK2 in HBL1
- BRD, BTK1, BTK2 in TMD8
- BTK 100_10X10 HBL1
- BTK 10x10 TMD8 Caspase Glow
- BTK 10x10 TMD8 Caspase Glow

Edit Assay Details

Edit assay

Assay Details

Metadata

FOTS Management

Notes

Project

DLBCL

MIPE Version

3

Name

BRD 10X10 TMD8 CTG 48hr

Type

Drug vs All

Size

10

Number of Components

2 (pairs of compounds)

Plate Type

384

Readout

Cell Titer Glow

Timepoint

0.0

Units

hour

Save changes

Cancel

Viewing and Downloading Data

1. Click on your Assay of interest in the left panel
2. Click the Heatmap Icon to view dose response curves (single agent screen) or matrix (combination screen)
3. Click the List Icon to view individual information for each compound or combination screened
4. Click the QC Diagnostics Icon for QC information on that assay

Viewing Data Online

The screenshot shows the Matrix@NCATS web application interface. The browser address bar displays <https://tripod.nih.gov/matrix-client/#login>. The navigation bar includes links for New Project, New Assay, Edit Project, Edit Assay, Compare selected assays, and Help, along with a shopping cart icon and a Logout vhl link.

On the left, a sidebar titled "Filter projects ..." lists three folders: DLBCL, Malaria Matrix, and VHL Kidney Cancer. A blue arrow points to the VHL Kidney Cancer folder.

The main content area displays details for the VHL Kidney Cancer project:

- Project Name:** VHL Kidney Cancer
- Collaborator:** Marston Linehan
- Start Date:** 05/15/2014
- Notes:** All cell lines are clear cell renal carcinoma with a VHL null mutation. Cells are cultured in DMEM plus L-glutamine and sodium pyruvate, with 10% FBS and pen/strep added.

Below the project details is a table with the following columns: ID, Name, Type, No. Agent, Count, Size, Cell Line, Run Date, MIPE Version, and a View button. A blue arrow points to the View button for the first row.

ID	Name	Type	No. Agent	Count	Size	Cell Line	Run Date	MIPE Version	View
2641	UOK102_MIPE4.0	single	1	0		UOK102	05/12/2014	4	View
2661	UOK139_MIPE4.0	single	1	0		UOK139	05/16/2014	4	View
2881	UOK150_MIPE4.0	single	1	0		UOK150	06/20/2014	4	View
2861	UOK161_MIPE4.0	single	1	0		UOK161	06/13/2014	4	View
2681	UOK331_MIPE4.0	single	1	0		UOK331	05/21/2014	4	View

- Click on the VHL Kidney Cancer folder on the right panel
- Then click View on the far right

VHL Kidney Cancer / UOK102_MIPE4.0

Collaborator Marston Linehan

Start Date 05/15/2014

Notes All cell lines are clear cell renal carcinoma with a VHL null mutation. Cells are cultured in DMEM plus L-glutamine and sodium pyruvate, with 10% FBS and pen/strep added.

Assay ID 2641

Canonical Name 384_0x0_4_single_UOK102_Marston Linehan_Cell Titer Glow_48.0 hour

FOTS ID single with MIPE v4

Num Component 1

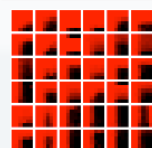
Block Size s-vhl-UOK102-1

Assay Volume 5.0 uL

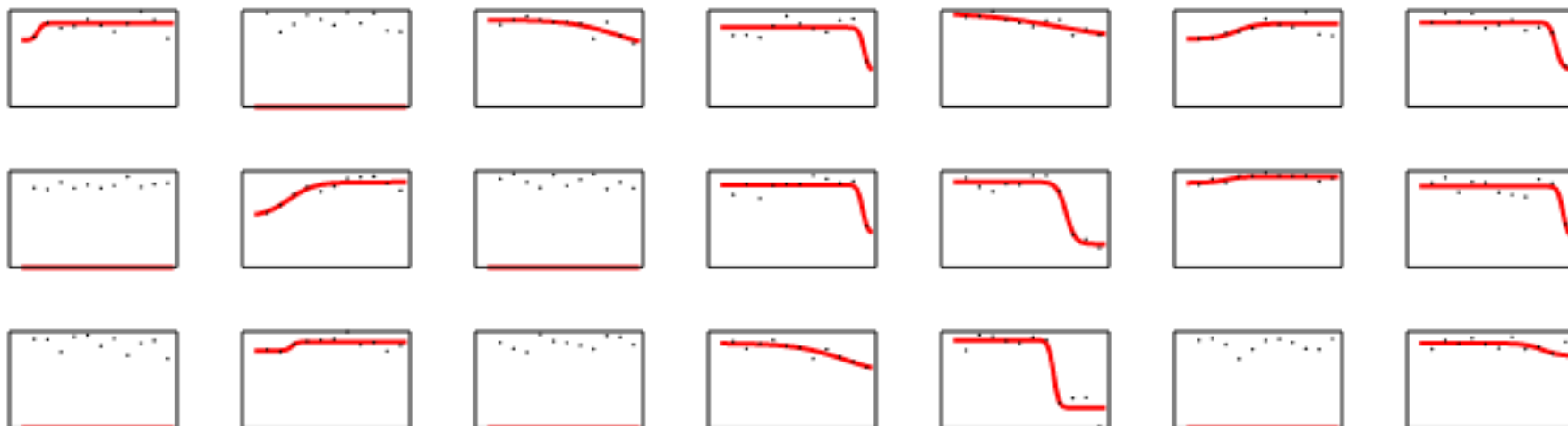
Readout Cell Titer Glow at 48.0 hour

Run date 05/12/2014

Notes UOK102 cells were plated at 500 cells per well then incubated for 4 hours. Next, compounds were added. Plates incubated with compound for 48 hours then Cell Titer Glo was added.



Well	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Mean	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
SD	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

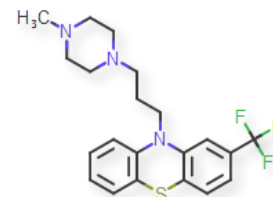
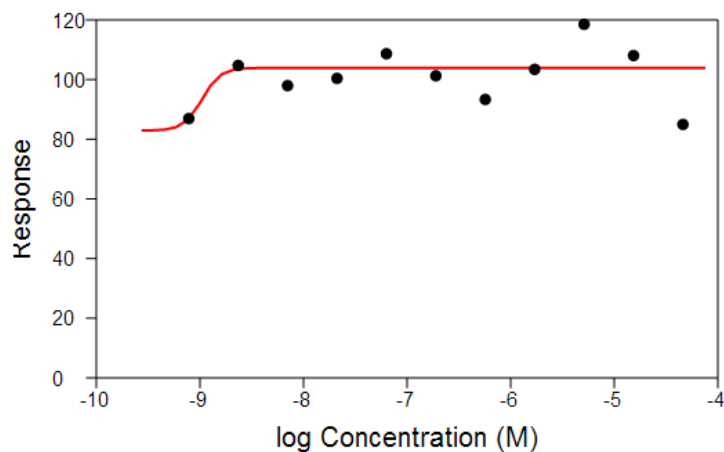


Serial	NCGC ID	Name	Target	MoA	AC50 (uM)	Hill Slope	Infinity	Zero	Curve Class?	Curve Class2?	Readout
1	NCGC00013226-15	Trifluoperazine hydrochloride	DRD2	Nav1.4 (SkM1) Sodium Channel Blockers; Nav1.7 (PN1/hNE-Na) Sodium Channel Blockers	0.00	4.95	103.90	82.90	1.3	1.4	activity



NCGC00013226-15 Trifluoperazine hydrochloride

activity



NCGC ID	NCGC00013226-15
Name	Trifluoperazine hydrochloride
MoA	Nav1.4 (SkM1) Sodium Channel Blockers; Nav1.7 (PN1/hNE-Na) Sodium Channel Blockers
Aliases	Trifluoperazine dihydrochloride, Trifluoperazine Hcl, Stelabid, Stelazine, Stelazine trifluoperazine, Trifluoperazina
CAS RN	440-17-5
Alt. Mechanism	

VHL Kidney Cancer / UOK102_MIPE4.0

Collaborator Marston Linehan

Start Date 05/15/2014

Notes All cell lines are clear cell renal carcinoma with a VHL null mutation. Cells are cultured in DMEM plus L-glutamine and sodium pyruvate, with 10% FBS and pen/strep added.

Assay ID 2641

Canonical Name 384_0x0_4_single_UOK102_Marston Linehan_Cell Titer Glow_48.0 hour

FOTS ID Type single with MIPE v4

Block Size qHTS protocol s-vhl-UOK102-1

Assay Volume 5.0 uL

Readout Cell Titer Glow at 48.0 hour

Run date 05/12/2014

Notes UOK102 cells were plated at 500 cells per well then incubated for 4 hours. Next, compounds were added. Plates incubated with compound for 48 hours then Cell Titer Glo was added.

Num Component

Only 10 compounds will display by default. To display everything, select all in the pull down menu then click the refresh button.

Download all data here!

1912 samples, 1 readout

[Download data](#)



Items to display



10

☐ Highlight actives

Clicking on any of the headings will sort all the data by that column

[← Previous](#)

[Next →](#)

Serial	NCGC ID	Name	Target	MoA	AC50 (uM)	Hill Slope	Infinity	Zero	Curve Class?	Curve Class2?	Readout
1	NCGC00013226-15	Trifluoperazine hydrochloride	DRD2	Nav1.4 (SkM1) Sodium Channel Blockers; Nav 1.7 (PN1/hNE-Na) Sodium Channel Blockers	0.00	4.95	103.90	82.90	1.3	1.4	activity 
2	NCGC00013724-01	Methscopolamine bromide		Muscarinic Antagonists	1000000.00	0.00	0.00	0.00	5	4	activity 

VHL Kidney Cancer / UOK102_MIPE4.0

Collaborator Marston Linehan

Start Date 05/15/2014

Notes All cell lines are clear cell renal carcinoma with a VHL null mutation. Cells are cultured in DMEM plus L-glutamine and sodium pyruvate, with 10% FBS and pen/strep added.

Assay ID 2641

Canonical Name 384_0x0_4_single_UOK102_Marston Linehan_Cell Titer Glow_48.0 hour

FOTS ID single with MIPE v4

Num Component 1

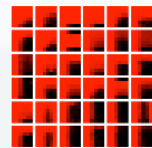
Block Size s-vhl-UOK102-1

Assay Volume 5.0 uL

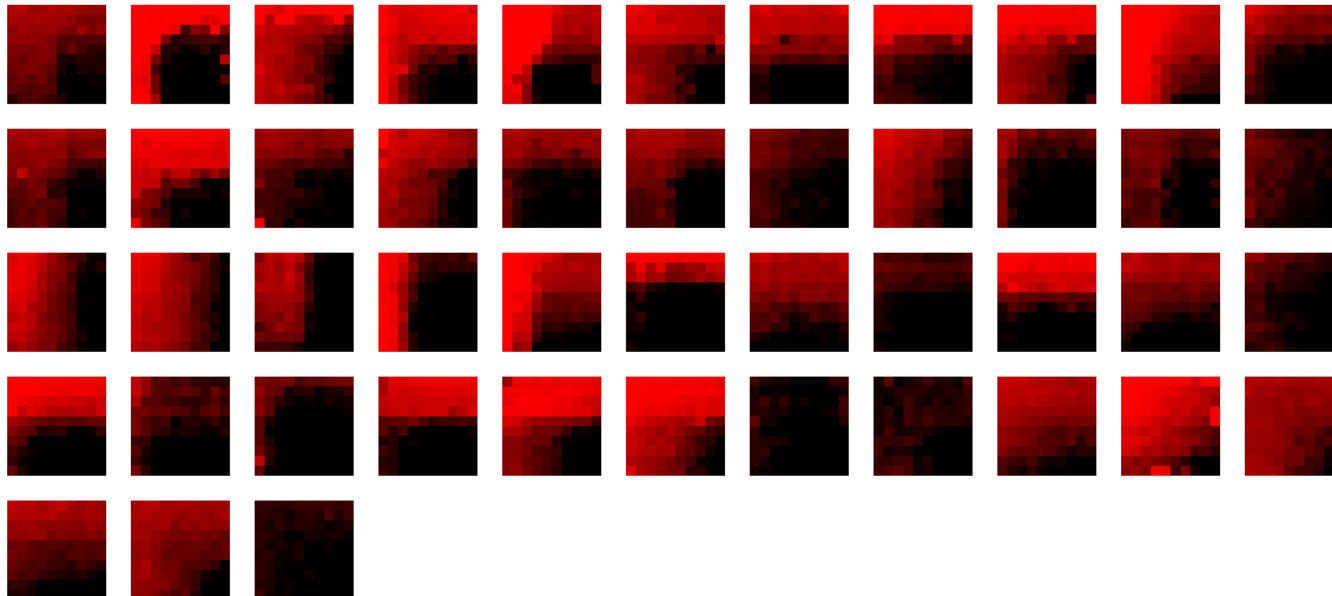
Readout Cell Titer Glow at 48.0 hour

Run date 05/12/2014

Notes UOK102 cells were plated at 500 cells per well then incubated for 4 hours. Next, compounds were added. Plates incubated with compound for 48 hours then Cell Titer Glo was added.



Well	1	2	3	4	5	6	7	8	9	10	11	12
A	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
B	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
C	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
D	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
E	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
F	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
G	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
H	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
I	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
J	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



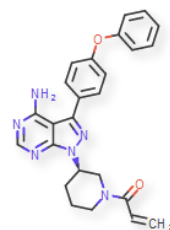
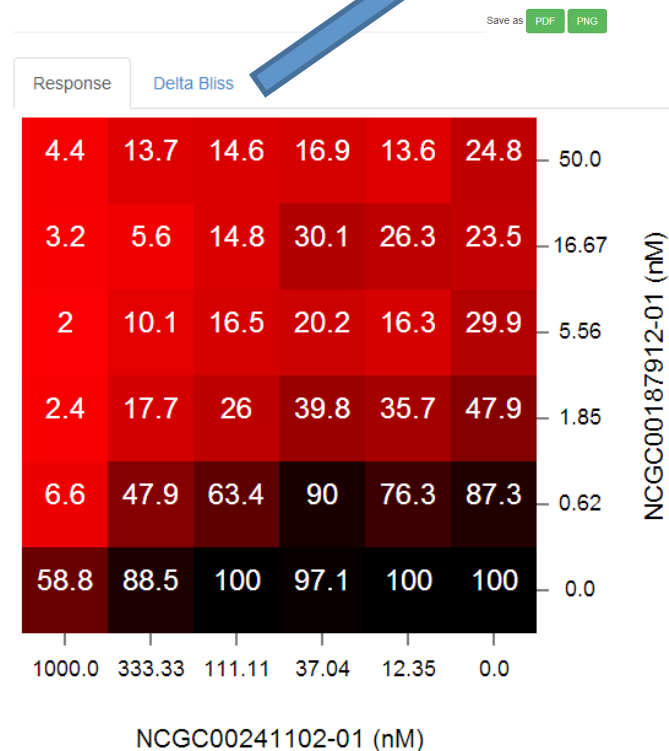
Block 3 6x6 BTK Matrix TMD8



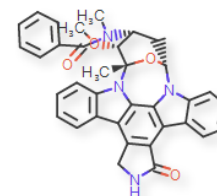
Red wells = viability readout, values are from CTG

Green wells = synergy assessment based on viability readout

Block 3 6x6 BTK Matrix TMD8



NCGC ID	NCGC00187912-01
Name	PCI-32765
MoA	Btk/Lck/Lyn inhibitor
Aliases	PCI-32765
CAS RN	936563-96-1
Alt. Mechanism	
Phase	



NCGC ID	NCGC00241102-01
Name	Midostaurin
MoA	PKC/ftt3 inhibitor
Aliases	Midostaurin, PKC 412, CGP-41251/PKC-412
CAS RN	120685-11-2
Alt. Mechanism	
Phase	

Save as

PDF

PNG

Download this specific matrix data

VHL Kidney Cancer / UOK102_MIPE4.0

Collaborator

Marston Linehan

Start Date

05/15/2014

Notes

All cell lines are clear cell renal carcinoma with a VHL null mutation. Cells are cultured in DMEM plus L-glutamine and sodium pyruvate, with 10% FBS and pen/strep added.

Assay ID

2641

Canonical Name

384_0x0_4_single_UOK102_Marston Linehan_Cell Titer Glow_48.0 hour

FOTS ID

single with MIPE v4

Num Component

1

Block Size

qHTS protocol

s-vhl-UOK102-1

Assay Volume

5.0 uL

Readout

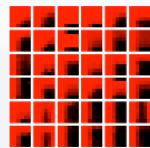
Cell Titer Glow at 48.0 hour

Run date

05/12/2014

Notes

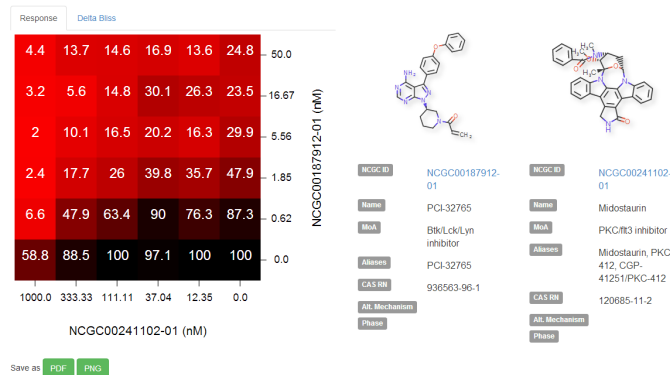
UOK102 cells were plated at 500 cells per well then incubated for 4 hours. Next, compounds were added. Plates incubated with compound for 48 hours then Cell Titer Glo was added.



6x6 BTK Matrix TMD8 (168)														
Show ComboID Selection Download 0 Filter rows														
Serial	QCScore	Cell Line	A	B	Median Excess	Num Excess	Excess HSA	Excess CRX	LS 3x3	Beta	Gamma	DBSumPos	DBSumNeg	Self Response Cross Matrix Δ Bliss
1		TMD8	PCI-32765 <i>Btk/Lck/Lyn inhibitor</i>	Canertinib <i>EGFR (HER1; erbB1) inhibitor</i>	84.21	6	581.06	581.06	11.74	1.19	1.18	6.67	-0.55	No
2		TMD8	PCI-32765 <i>Btk/Lck/Lyn inhibitor</i>	Neratinib <i>EGFR (HER1; erbB1) inhibitor</i>	78.45	18	-207.68	-207.68	-14.72	0.93	0.91	0.38	-1.86	No
3		TMD8	PCI-32765 <i>Btk/Lck/Lyn inhibitor</i>	Midostaurin <i>PKC/Itk3 inhibitor</i>	91.03	22	-424.84	-424.84	-27.91	0.87	0.83	0.15	-3.5	No
4		TMD8	PCI-32765 <i>Btk/Lck/Lyn inhibitor</i>	TAE-684 <i>Anaplastic Lymphoma Kinase (ALK) Inhibitor</i>	86.5	24	-282.82	-282.82	-13.49	0.9	0.89	0.03	-2.67	No
5		TMD8	PCI-32765 <i>Btk/Lck/Lyn inhibitor</i>	AZD-7762 <i>Chk1/2 Inhibitor</i>	90.19	14	-205.84	0	-17.56	0.9	0.85	0.17	-1.69	No

Serial	QCScore	Cell Line	A	B	Median Excess	Num Excess	Excess HSA	Excess CRX	LS 3x3	Beta	Gamma	DBSumPos	DBSumNeg	Self Response Cross	Response Matrix	Δ Bliss
1		TMD8	PCI-32765 <i>Btk/Lck/Lyn</i> inhibitor	Canertinib <i>EGFR (HER1; erbB1)</i> inhibitor	84.21	6	581.06	581.06	11.74	1.19	1.18	6.67	-0.55	No		
2		TMD8	PCI-32765 <i>Btk/Lck/Lyn</i> inhibitor	Neratinib <i>EGFR (HER1; erbB1)</i> inhibitor	78.45	18	-207.68	-207.68	-14.72	0.93	0.91	0.38	-1.86	No		
3		TMD8	PCI-32765 <i>Btk/Lck/Lyn</i> inhibitor	Midostaurin <i>PKC/ftt3</i> inhibitor	91.03	22	-424.84	-424.84	-27.91	0.87	0.83	0.15	-3.5	No		
4		TMD8	PCI-32765 <i>Btk/Lck/Lyn</i> inhibitor	TAE-684 <i>Anaplastic Lymphoma Kinase (ALK)</i> Inhibitor	86.5	24	-282.82	-282.82	-13.49	0.9	0.89	0.03	-2.67	No		
5		TMD8	PCI-32765 <i>Btk/Lck/Lyn</i> inhibitor	AZD-7762 <i>Chk1/2</i> Inhibitor	90.19	14	-205.84	0	-17.56	0.9	0.85	0.17	-1.69	No		

Block 3 6x6 BTK Matrix TMD8



Combination Screening @ x

https://tripod.nih.gov/matrix-client/#login

Matrix@NCATS New Project New Assay Edit Project Edit Assay Compare selected assays **Help** 0 Logout vhl

Filter projects ...

- DLBCL
- Malaria Matrix
- VHL Kidney Cancer

Project Name VHL Kidney Cancer

Collaborator Marston Linehan

Start Date 05/15/2014

Notes All cell lines are clear cell renal carcinoma with a VHL null mutation. Cells are cultured in DMEM plus L-glutamine and sodium pyruvate, with 10% FBS and pen/strep added.

ID	Name	Type	No. Agent	Count	Size	Cell Line	Run Date	MIPE Version	
<input type="checkbox"/> 2641	UOK102_MIPE4.0	single	1	0		UOK102	05/12/2014	4	View
<input type="checkbox"/> 2661	UOK139_MIPE4.0	single	1	0		UOK139	05/16/2014	4	View
<input type="checkbox"/> 2881	UOK150_MIPE4.0	single	1	0		UOK150	06/20/2014	4	View
<input type="checkbox"/> 2861	UOK161_MIPE4.0	single	1	0		UOK161	06/13/2014	4	View
<input type="checkbox"/> 2681	UOK331_MIPE4.0	single	1	0		UOK331	05/21/2014	4	View

Combination Screening Help

The *Tabular* tab summarizes the results of a combination screen. Several metrics of synergy are reported and their details are provided below. Our experience has shown that no single metric is effective in characterizing synergy over a large number of cases and that correlation between some of these metrics are relatively poor.

Clicking on NCGC ID's (columns **A** and **B**) will display an information box for the compounds. Clicking on the heatmaps will display a larger version of the heatmap along with the information boxes of the two compounds for that combination. Clicking on column headers will allow you to sort the entire table by that column.

- MedianExcess:** The median of the sum of the differences between the combination responses and the single agent responses. More positive values are better
- NumExcess:** The number of combinations in a block that show a better combination responses than *both* the corresponding single agents. Larger is better
- Excess HSA:** The HSA (see below) model is computed and the differences between each combination in the block and the corresponding HSA value are summed. More negative values are better
- ExcessCRX:** An extension of the 'Excess HSA' metric that takes into account dilution factors. These factors are based on the EC₉₀ and EC₁₀ values of the single agent curves. Since the single agent curves are derived from the individual blocks, they can be noisy and thus the EC₉₀ and EC₁₀ can be inaccurate, resulting in noisy values for this metric. See [Lehar et al](#) for more information
- LS 3x3:** The sum of the deviations from the HSA model are evaluated on all 3x3 submatrices of the response matrix (excluding the single agent row and column) and the minimum value is reported as LS 3x3 (originally suggested by [Louis Staudt](#)).
- Beta:** The parameter that minimizes the difference between the observed combination effect and that obtained from the Bliss independence model. Values less than 1, greater than 1 and equal to 1 indicate synergy, antagonism and non-interaction respectively. See [Cokol et al](#) for more details
- Gamma:** The parameter that minimizes the difference between the observed combination effect and Gaddums non-interaction model. Values less than 1, greater than 1 and equal to 1 indicate synergy, antagonism and non-interaction respectively. See [Cokol et al](#) for more details
- DBSumNeg:** The sum of the negative deviations from the Bliss model. In practice this is simply the sum of the negative elements of the Δ Bliss matrix
- DBSumPos:** The sum of the positive deviations from the Bliss model. In practice this is simply the sum of the positive elements of the Δ Bliss matrix
- Δ Bliss** - the excess over the Bliss model at each combination. More negative values indicate that the combination is better than the activity predicted by the Bliss model. A value of 0 indicates that the combination is no different from that predicted by the Bliss model

Support

- If you are having issues with the site itself (login problems, missing projects, etc), please contact Raj Guha at guhar@mail.nih.gov